

What is claimed is:

1. A rear projection television comprising:
 - a casing having a projection screen, said projection screen constituting a front face of said casing;
 - a projector provided within said casing for emitting a light beam containing an image information; and
 - an end side reflection mirror provided within said casing in the vicinity of an end portion of said projection screen, for reflecting said light beam emitted from said projector toward a whole rear surface of said screen as an incident light beam, said end side reflection mirror being arranged such that an optical axis of said incident light beam incident on said end side reflection mirror is slanted toward said screen to gradually reduce a distance between said optical axis and said screen.
2. A rear projection television as claimed in claim 1, further comprising a focusing optical part provided between said end side reflection mirror and said projector, said focusing optical part being composed of a plurality of focusing mirrors for enlarging and projecting the image information.
3. A rear projection television as claimed in claim 1, further comprising a rear side reflection mirror provided within said casing on a rear side thereof, said rear side reflection mirror being adapted to reflect the light beam emitted by said projector to produce the incident light beam.

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1 4. A rear projection television as claimed in claim 1,
2 wherein an angle between a surface of said end side
3 reflection mirror and said surface of said screen is in a
4 range from 70 degrees to 120 degrees.

1 5. A rear projection television as claimed in claim 1,
2 wherein an angle an optical axis of an incident light beam
3 incident from a center of said end side reflection mirror
4 onto a center of said screen and a normal line of said
5 center of said screen is 45 degrees or more.

1 6. A rear projection television as claimed in claim 1,
2 wherein a normal line of said end side reflection mirror is
3 in parallel to a surface of said screen.

1 7. A rear projection television as claimed in claim 1,
2 wherein a depth size of said casing is one fifth a diagonal
3 size of said screen or smaller.

1 8. A rear projection television as claimed in claim 1,
2 wherein said screen has a construction including a full
3 reflection type Fresnel lens and a lenticular lens
4 laminated on said Fresnel lens.

1 9. A rear projection television as claimed in claim 8,
2 wherein an optical axis of said Fresnel lens is separated
3 from a center of said screen.

1 10. A rear projection television as claimed in claim 9,
2 wherein said optical axis of said Fresnel lens is outside
3 of said screen.

1 11. A rear projection television as claimed in claim 2,
2 wherein said focusing optical part is constructed with a

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3 first mirror for reflecting a light emitted from an image
4 element forming the image information, a second mirror for
5 reflecting the light reflected by said first mirror, a
6 third mirror for reflecting the light reflected by said
7 second mirror and a fourth mirror for reflecting the light
8 reflected by said third mirror.

1 12. A rear projection television as claimed in claim 11,
2 wherein said first, second, third and fourth mirrors are
3 arranged such that the light reflected by said fourth
4 mirror becomes the incident light beam on said end side
5 flat mirror.

1 13. A rear projection television as claimed in claim 1,
2 further comprising a group of micro reflection mirrors for
3 representing an image by reflecting an illumination light
4 beam emitted from said light source to arbitrary directions.

1 14. A projecting method of a rear projection television,
2 comprising the steps of:

3 expanding and projecting an image on an image
4 display element by a focusing optical part; and

5 combining and arranging said focusing optical part
6 and a plurality of reflection mirrors such that an incident
7 light beam incident on a final stage reflection mirror of
8 said reflection mirrors to be focused on a projection
9 screen is slanted toward said screen to gradually reduce a
10 distance between said incident light beam and said screen.

1 15. A projecting method of a rear projection television,
2 as claimed in claim 14, wherein an incident angle of an

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3 incident light on said screen is 45 degrees or more.

1 16. A projecting method of a rear projection television,
2 as claimed in claim 14, wherein a center of the focused
3 image is different from an optical axis of said focusing
4 optical part.

1 17. A projecting method of a rear projection television,
2 as claimed in claim 14, wherein said rear projection
3 television includes an optical path folding mirror provided
4 on an upper or bottom side of a casing of said rear
5 projection television.

1 18. A projecting method of a rear projection television,
2 as claimed in claim 14, wherein an optical axis of a light
3 beam reflected by a reflection mirror immediately preceding
4 said final stage reflection mirror is slanted toward said
5 screen to gradually reduce a distance between said optical
6 axis and said screen.

1 19. A projecting method of a rear projection television,
2 as claimed in claim 14, wherein said focusing optical part
3 is constructed with a plurality of mirrors.

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